



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# The American Economic Review

VOL. II

DECEMBER, 1912

No. 4

## THE DEFINITION OF PRICE

### *I. Scope and plan of study.*

The need of a clearer, more consistent, and more generally accepted terminology in economics is felt by all economists today. The selection of "price" as the first subject for terminological discussion may, however, call for justification.<sup>1</sup> It has been objected that price is a less difficult term, less in need of re-definition, than are various other concepts such as value, cost, etc. But the easiest topic in terminology is none too simple. Our definitions, which should constitute a system, seem at times to be but a snarl to be untangled, if at all, only by carefully pulling a strand at a time, beginning with the threads least immeshed. Price in all its variations of definition has to do with practical transactions in the market; it seems to be a more tangible fact, a more superficial phenomenon than such things as value and cost; it should present, therefore, fewer difficulties in definition. Yet it presents difficulties enough to call for all our patience and thought.

With the purpose of determining not only what definitions of price have been used, but also what, if any, trend of thought in the subject could be discovered, the writer consulted many texts and found some 117 definitions.<sup>2</sup> These were classified according to the following plan.

<sup>1</sup> A few of the data in this paper were informally presented by the writer, as chairman, at the round table discussion on the price concept in relation to value, in Washington, D. C., Dec. 29, 1911. See "Proceedings of the American Economic Association," *AMERICAN ECONOMIC REVIEW*, vol. II, no. I, supp., p. 89.

<sup>2</sup> The list of texts consulted includes all the general texts on economics and all the economic cyclopedias found in the Princeton and in the Columbia University libraries. Further labor would doubtless discover a number of other texts and might lead to changes in the classification of some writers, but the study has been extended enough to warrant the belief that our most important results would not be materially changed by new data. The data are taken as fairly representative, though not exhaustively statistical. No complete list

Group A. Objective-exchange-value<sup>3</sup> definitions of price in terms of value in the sense of purchasing power (including on grounds of relationship of ideas some definitions in which no mention of value appears).

Group B. Subjective-value<sup>3</sup> definitions of price in terms of value in the sense of desirability, estimation, subjective value (including cases in which value is merely said to be reflected in some degree by price, or is merely in the background of the thought).

Group C. Ratio-of-exchange definitions of price in terms of value in the sense of a mere ratio of exchange, or bare mathematical expression, or quantum. (In these descriptions the phrase "in terms of value" means as a species of the genus value, or as an expression or measure of value; see below, p. 807. In each of these groups are two varieties usually, but not always, clearly identifiable.

Variety 1. Non-monetary definitions of price, wherein price is not peculiarly connected with the money-expression, (*i.e.*, takes form in any commodity or sum of goods given and received in exchange for another thing.)

Variety 2. Monetary definitions of price, wherein price *is* peculiarly connected with the money-expression.

The combination of these two classifications gives six main kinds of definitions, hereafter referred to as types; *e.g.*, as type A1 the non-monetary objective-exchange value type; etc. Numerous small individual variations appear which elude any classification.

was kept of authors in whose writings a quotable definition was not found, but the following would be included: List, Newman, Paoletti (and many other of the older Italian writers), Pierson, Ráper, Rapet, Raymond, Rogers, Scialjo, Walras, Wieser. Many have just chanced to avoid committing themselves directly or indirectly to a definition of price, usually by employing some other phrase, such as market value, as a synonym. The definition that would have been given by some of these writers might be fairly well inferred, but I have not done this, except in a few cases as indicated in the text of this article.

At the round table discussion at Washington the distinction tentatively presented by the writer as primary was that of monetary, non-monetary, with the subheads A, B, and C, indicating the type of value definition. See "Proceedings," *AMERICAN ECONOMIC REVIEW*, vol. II, No. 1, supp., p. 89.

<sup>3</sup>The Austrian terms are followed in these cases as perhaps the most generally used now. The writer does not, however, commit himself to this terminology.

In the following tables the authors' names, grouped by the six types, are arranged chronologically, the letters indicating the language in which the author wrote; Americans (A) are, however, distinguished from English (E); the one Australian is classed with English (E); Austrians with Germans (G); French Swiss with French (F); and Italians are indicated by I. It is a lingual rather than a political classification, except that English is subdivided between English (including Scotch, Irish, and Australian) and American.

## II. Objective-exchange-value non-monetary definitions; type A1.

In presenting a list of representative definitions let us begin with that of Adam Smith, returning later to the type which was used by his predecessors and by some of his contemporaries. Smith (*Wealth of Nations*, 1776) gives no formal definition of price but implies one in these statements:

I shall endeavor to show . . . what is the real measure of this exchangeable value, or wherein consists the real price of all commodities (Routledge ed., p. 22).

The real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it (p. 22).

Labor was the first price—the original purchase money etc. (p. 23).

The exchangeable value of every commodity is more frequently estimated by the quantity of money than . . . of labor, or of any other commodity (p. 24).

Every commodity, besides, is more frequently exchanged for, and therefore compared with, other commodities, than with labor. It is more natural therefore to estimate its changeable value by the quantity of some other commodity than by that of the labor which it can purchase (p. 23).

Price here means the cost of a thing either in exchange or in direct production, and may be "measured" in other commodities or in toil, trouble, labor, or money.

Smith's definition is of the non-monetary objective type, of which the following twenty-seven examples have been found, twelve English, five American, four French, and six German.

Smith	1776	E	Mill, J.	1821	E
Jakob	1809	G	McCulloch	1825	E
Ganilh	1812	F	McVickar	1825	A
Hufeland	1815	G	DeQuincy	1844	E
Malthus	1820	E	Roscher	1854	G
Torrens	1821	E	Umpfenbach	1867	G

Bowen .....	1870	A	Devas .....	1892	E
Mangoldt .....(2d ed. 1871)	G	Cannan .....(2d ed. 1897)	E		
Cairnes .....	1874	E	Lindsay .....	1899	A
Musgrave .....	1875	E	Flux .....	1904	E
Price .....	1878	E	Pesch .....	1905	G
Walker .....	1884	A	Landry .....	1908	F
Houdard .....	1889	F	Univ. of Chicago <sup>4</sup> .....	1910	A
Molinari .....	1891	F			

Gottlieb Hufeland, professor of laws in the University of Landshut, gave exceptional attention to exact definition. His work long exercised a wide influence and he is still one of the most frequently quoted of the writers of his period. He said in his *Neue Grundlegung der Staatswirtschaftskunst* (Wien, 1815), pp. 22, 100:

"Price is a compared exchangeable value." "In an exchange one must make a comparison between the value of the goods to be given and the value of those to be received."

This indicates that the goods on either side of the exchange may be deemed to be the price of the other goods.

R. Malthus (*Political Economy*, London, 1820) well nigh goes over to a monetary concept, believing it "would certainly be better," but confesses that "it is not uncommon to speak of the price of a commodity in labor, or in other commodities" (p. 58).

A clear-cut example of this type of definition occurs in R. Torrens (*Production of Wealth*, London, 1821):

"Exchangeable value expresses the power of purchasing with respect to commodities in general; . . . price denotes the same power with respect to some particular commodity, the quantity of which is given." Examples given are "corn, or wine, or labor, or money" (p. 48).

Similar definitions were given by the English writers John Mill, J. R. McCulloch, and T. DeQuincy (1844) and then the non-monetary variety of exchange-value definition disappears from the American writings in our list until 1870 (Bowen) and from the English until 1874 (Cairnes).

J. E. Cairnes said (*Some Leading Principles of Political Economy*, 1874):

[Commodities] may rise or fall in relation to any selected one among the number; and if gold or silver be the one selected, commodities in general may rise in relation to gold or silver. The value of other commodities in relation to a commodity thus selected is called "price."

<sup>4</sup> *Outlines*, prepared by teachers in the University of Chicago.

Francis A. Walker offers a good example of this type (*Political Economy*, 1884):

Price is purchasing power expressed in terms of some one article; power-in-exchange-for-that-article, be the same wheat, or beef, or wool, or gold, or silver. In common speech the word price brings up the idea of money-value, the purchasing power of an article expressed in terms of money. Yet it is equally correct to say that the price is 75 bushels of wheat, as to say it is \$100 (p. 82).

A non-monetary (but near monetary) definition is given by Houdard (*Premiers Principes de l'Economique*, Paris, 1889):

Price is "the expression of the exchange value of a thing in units of exchange value" (p. 97). "The term price has received the meaning of the commodity given as equivalent to another. . . . In most cases . . . price signifies the quantity of money necessary to acquire a good" (p. 98).

The seven last writers in the foregoing list, from Devas (1892) on (three English, two American, one French and one German), all show evidence of the influence of the newer "marginal utility" doctrine, combined with otherwise conservative views on economic theory. Pesch, the one German writer (1905), is a Jesuit priest, whose ideas evidently are taken directly from Devas, professor in the University of Dublin, and not from German sources.

### III. Objective-exchange-value monetary definitions; type A2.

The curious wording, "exchangeable value expresses the power of purchasing" which occurs in Torrens' definition, above, implies some confusion between ideas of value as a quality of things and as the concrete object in which it is expressed. Already this confusion had appeared in the identifying of purchasing power and price in Ricardo's *Political Economy* in 1817, four years before Torrens' book. Ricardo at the same time gave the first example to be found in our list of the monetary variety of the price concept. He gave in that connection no formal definition of price nor did he explicitly distinguish it from value.<sup>5</sup> He quotes Adam Smith approvingly, however, as to labor being the "real price" and "the first price." He speaks of "the natural price of wages estimated in food and necessities,"<sup>6</sup> These expressions by themselves imply the non-monetary concept of price, but he heads section 7, of chapter 1: "Different effects from the alteration in the value of money, the medium in which price is always ex-

<sup>5</sup> McCulloch's ed., London, 1871, pp. 22-25.

<sup>6</sup> Economic Classics ed., ch. 5, p. 84.

pressed." In his essay "Proposals for an economical and secure currency," etc., 1816,<sup>7</sup> he says: "The price of a commodity is its exchangeable value in money only."

Ricardo's general usage of terms seems to be: Value means command over commodities in general, or power in exchange, while price means the amount of money for which a commodity will exchange. This concept is of the exchange-value-monetary type (A2), of which forty-three examples appear in our list, it being the most numerously represented of the six types.

There are 11 English, 15 American, 14 French, 3 Italian, and no German names.

Ricardo .....	1817	E	Perry .....	1878	A
Marcet .....	1821	E	Nazzani .....	1881	I
Senior .....	1836	E	Sidgwick .....	1883	E
Wayland .....	1837	A	Ford <sup>8</sup> (in Lalor's Ency.)	1884	A
Carey .....	1837	A	Newcomb .....	1885	A
Vethake .....	1838	A	Leroy-Beaulieu .....	1887	F
Droz .....	1846	F	Laughlin .....	1888	A
Mill, J. S.....	1848	E	Macvane .....	1890	A
Coquelin et			Marshall .....	1890	E
Guillaumin (Dict.)...	1854	F	Prothero .....	1895	E
Courcelle-			Perin .....	1895	F
Seneuil (Dict.).....	1858	F	Foville .....	1896	F
Smith, E. P.....	1860	A	Bullock .....	1897	A
Garnier .....	1860	F	Nicholson .....	1903	E
Boccardo .....	1861	I	Bonar .....	1903	E
Cherbuliez .....	1862	F	Seager .....	1904	A
Hearn .....	1864	E	Carver <sup>9</sup> .....	1904	A
Batie .....	1866	F	Levasseur .....	1905	F
Metz-Noblat .....	1867	F	Beauregard .....	1905	F
Walker, A.....	1867	A	Johnson, J. F.....	1905	A
Fawcett (Mrs.).....	1874	E	Colson .....	1907	F
Cossa .....	1875	I	Taussig .....	1911	A
Cauwès .....	1878	F			

Between Ricardo and J. S. Mill a half dozen names are found in this list, while an equal number (of those we have found) adhered in this period to the non-monetary definition as still tenable if not always preferable. When, however, J. S. Mill in 1848 added the weight of his authority, this form of definition became markedly dominant. J. S. Mill said:

<sup>7</sup> McCulloch's ed., p. 401.

<sup>8</sup> Ford grants a wider, non-monetary meaning in a state of barter.

<sup>9</sup> Carver says that the commodity in which price is expressed is "usually" called money, perhaps admitting a non-monetary meaning.

Exchange value requires to be distinguished from Price. The words Value and Price were used as synonyms by the early political economists, and are not always discriminated even by Ricardo. But the most accurate modern writers, to avoid the wasteful expenditure of two good scientific terms on a single idea, have employed price to express the value of a thing in relation to money; the quantity of money for which it will exchange. By the price of a thing, therefore, we shall henceforth understand its value in money; by the value, or exchange value of a thing, its general power of purchasing; the command which its possession gives over purchasable commodities in general. (*Political Economy*, Book 3, ch. 1, sec. 2, p. 538.)

Mill has no glimpse here of the pre-Ricardian ground of distinction between "exchangeable value" as a quality, or power, in commodities, and price as the expression of that power in terms of commodities.<sup>10</sup> Thinking, therefore, that the two words were used as synonyms "even" by Ricardo, he fixes upon the monetary expression of price as a possible distinguishing character. Yet he does not define price as the money (or amount of money) given in exchange, but as the "value" (purchasing power) expressed in terms of money. (This distinction may not be immediately obvious but it involves a real problem in terminology.) Mill leaves no special name either for the amount of money itself, or for the quantity of commodities in general, given in exchange for a thing.

The definition of P. Leroy-Beaulieu stresses the estimation of value rather than its expression (*Precis d'Econ. Pol.*, 1st ed., 1887): "When value is estimated in money it takes the name price" (p. 208).

The mathematician S. Newcomb emphasizes price as a measure of value, in preference to the terms expression or estimation, in a definition of a monetary type (*Principles*, 1885):

Price is considered as the measure of value. The price of a commodity is the number of units of money which the commodity can be exchanged for in the public market. . . . Price is the measure of value just as length is the measure of a line (p. 63).

In the French dictionary of Coquelin et Guillaumin (*Dict. de l'Econ. Pol.*, 1854) all reference to value is omitted and a mere amount-of-money definition is given. Price is "the quantity of money for which one may buy or sell a commodity" (p. 435).

Similar definitions are given by J. L. Laughlin (*Political Economy*, 1888): "Price is the amount of money for which an article may be exchanged"; by Macvane (1890): "The price of a thing

<sup>10</sup> An explanation of this oversight is given below (pp. 801-802).

means the amount of money it exchanges for"; by A. de Foville (in Say's Dict., 1896): "Price is the sum for which it is or can be exchanged"; and by Beauregard (*Elements*, 1905): Price occurs "when a thing is exchanged for money." This form of concrete definition of price, without explicit reference to value, rare among those whose value concept is objective, is found more frequently among those who hold a subjective concept, as is indicated below (p. 808).

#### IV. Subjective-value non-monetary definitions; type B1.

The list of definitions in group B begins with Beccaria (work written between 1769 and 1771 but first published in 1804). There are 28 examples of the non-monetary type as shown in the following list: 1 English, 6 American, 2 French, 4 Italian, and 15 German.

Beccaria	1769-71	I	Neumann	1885	G
Verri	1771	I	Böhm-Bawerk	1888	G
Condillac	1776	F	Pantaleoni	1889	I
Say	1803	F	Philippowich	1893	G
Lauderdale	1804	E	Zuckerlandl	1893	G
Storch	1815	G	Hadley	1896	A
Schulze	1856	G	Pareto	1896 <sup>12</sup>	I
Glaser	1858	G	Hicks	1901	A
Menger	1871	G	Patten	1902	A
Schäffle	1873	G	Kleinwächter	1902	G
Wagner	1876	G	Fetter	1904	A
Conrad	1876 <sup>11</sup>	G	Seligman	1905	A
Schmidberger	1881	G	Schumpeter	1909	G
Schober	1882	G	Anderson	1911	A

The following are a few representative definitions of this type:

C. Beccaria (in *Scrittori Classici Italiani*, vol. 18, p. 339) said: "The quantity of anything which must be given for another fixes and is called its price." In the succeeding pages discussing value and price, money is not mentioned, and wine is called the price of the grain for which it is given and vice versa. He appears in these pages to use value always in the sense of the estimation of a thing, whereas price is the object given.

J. B. Say (in *Political Economy*, 1st ed., 1803; citations from the 3d American ed.):

<sup>11</sup> Approximate date of earliest edition (undated) of his *Grundriss* (6th ed., 1907) used by many American students.

<sup>12</sup> Published in French at Lausanne.

The valuation of an object is nothing more or less than the affirmation that it is in a certain degree of comparative estimation with some other specified object; and any other object possessed of value may serve as the point of comparison (p. 235).

The only fair criterion of the value of an object is the quantity of other commodities at large that can be readily obtained for it in exchange whenever the owner wishes to part with it; and this, in all commercial dealings, and in all money valuations, is called the current price (p. 236).

The price of an article is the quantity of money it may be worth; current price, the quantity it may be sure of obtaining at the particular place . . . money-price is selected for the purpose of illustration in preference to price in commodities at large, merely for greater simplicity; but the real and ultimate object of exchange is, not money, but commodities (p. 250).<sup>13</sup>

K. Menger (in *Grundsätze*, 1871): "Prices, or in other words, the quantities of goods appearing in exchange" (p. 172).

A. Wagner (in *Grundlegung*, 1st ed., 1876, ref. to 3d ed., 1892):

The price of a good is the quantity of other goods for which it actually is exchanged . . . a good can have as many prices as there are goods for which it is exchanged . . . the money price is only one price-form, the most usual. . . . The concept of price is to be formed so generally that every equivalent in exchange whether money or something else can be brought under it (p. 339).

A. T. Hadley (in *Economics*, 1896):

A price, in the broadest sense of the word, is the quantity of one thing which is exchanged for another (p. 70). A price in the commercial sense of the word, may be defined as the quantity of money for which the right to an article or a service is exchanged (p. 72).

F. C. Hicks (in *Lectures on the Theory of Economics*, 1901):

Value when measured is expressed in terms of the measure or unit of comparison, and this expression is price. Price, then, may be defined as value expressed in terms of a measure (p. 29). The price for the horse is 50 sheep. This is the value of the horse expressed in terms of the measure sheep (p. 33).

S. N. Patten (*The Theory of Prosperity*, 1902, p. 17):

Price is the quantity of one article which must be given in ex-

<sup>13</sup> These latter statements are taken to justify our classification of Say's definition. However, in his notes to Storch, *Cours d'Econ. Pol.* (1823) he says: "It is preferable usage to call exchangeable value the quantity of all other goods that are given in exchange for what one wishes to have; and price the quantity of money that is given for the same object" (vol. 1, p. 72). This would indicate that (perhaps through Ricardian influence) Say had gone over to a monetary exchange value concept of price.

change for another . . . The price of a loaf of bread is the quantity of meat, sugar, or other articles for which it exchanges.

E. R. A. Seligman (in *Principles of Economics*, 1905) gives two definitions on the same page.

When we measure a commodity in terms of some one other commodity, we speak of price. If the value of a cow is equal to that of five sheep, we say that the price of a cow is five sheep . . . by price we now mean the money value of anything—the amount of money for which it will exchange (p. 184).

#### V. Subjective-value monetary definitions; type B2.

Of this type we have 13 cases, none English, 7 American, 2 French, and 4 German.

Kudler	1845	G	Ely	1893	A
Stein	1858	G	Devine	1898	A
Maurus	1868	G	Schmoller	1904	G
Gide	1883	F	Kemmerer	1906	A
Guyot	1884	F	Blackmar	1907	A
Clark, J. B. <sup>14</sup>	1887	A	Johnson, A. S.	1909	A
Andrews	1888	A			

The following are examples of this type:

Joseph Kudler (Professor in the University of Vienna; *Die Grundlehren der Volkswirtschaft*, 1st ed., 1845; Vienna, 1856):

By price we mean the quantity of the general medium of exchange which is asked or bid for a good (p. 76). The value of a thing depends upon the recognition of its fitness for human purposes (p. 47).

C. Gide (*Principles of Pol. Econ.*, 1st ed. 1883; 1st Eng. ed., 1892):

The price of an object . . . is its value expressed in terms of money and as in every civilized country money is the only measure of values, the word "price" has become synonymous with the word "value" (p. 82). Value is desirability (p. 44).

E. B. Andrews (*Institutes of Economics*, copyright, 1888):

When of any article the value is expressed in terms of some other, that other may be called the "value-form" of such article. The most common value-form attached to goods is money, and the money value-form is price (p. 107).

R. T. Ely (*Outlines of Economics*, copyright, 1893; ed., 1901):

Price is the expression of value in terms of money (p. 125). Value is the capacity to excite desire (p. 125).

A. S. Johnson (*Introduction to Economics*, 1909):

Value expressed in terms of money is known in economics as price (p. 35). There are personal prices and social prices just as there

<sup>14</sup> In his *Philosophy of Wealth*, p. 82. No later definition by Clark discovered.

are personal and social values . . . Social price is called market price (p. 86).

*VI. Ratio-of-exchange monetary definitions; type C2.*

Group C contains six names, and as the first of these in point of time is that of Jevons, we shall in discussing Group C reverse the order followed heretofore, and begin with the monetary type. Three examples of this have been found:

Jevons .....	1871	E
Ramnaud .....	1895	F
Davenport .....	1908	A

As students of Jevons will recall, he was not a courageous terminologist, and was prone to abandon an ambiguous term instead of clarifying it. He did this in the case of value and even thought of rejecting the term money because it had no universally accepted meaning. He declares in favor of substituting for "value" the term "ratio of exchange." He could do this without fully realizing the havoc this suggestion (if adopted generally) would make, for he was an ultra-Benthamite in his psychology, and had therefore transferred most of the content of the term value to the term utility (as noted below, p. 802). Of "value" he says:

Now if there is any fact certain about value, it is that it means not an object at all, but a quality, attribute, or rather a circumstance of an object. Value implies, in fact, a relation; but, if so, it cannot possibly be some other thing. (*Theory of Political Economy*, 1871, pp. 81-82.)

The same commodities in the same market can have only one ratio of exchange, which must therefore prevail between each body and each other (*idem*, p. 113).

Jevons nowhere, so far as I can find, formally defined price and the classification of him here is based on his use of the word in a few cases where it seems to mean a ratio of exchange expressed in money. His attention seemed directed upon the idea of a ratio implicit in the quantity of goods exchanged rather than upon the quantity of goods, and he did not speak of price as the other object given in exchange.

The initial influence of Jevons in this group of six definitions warrants some further examination of his conception. Save only Gunton (where the connection, however, seems probable), the other five cases of ratio definitions are traceable, in phrase and argument, to Jevons.

Jevons was very laudably seeking for a more scientific treatment of the fundamental principles through the application of mathematics to economics. He was, however, with his great general ability, but a crude psychologist judged by present standards and, as he confessed himself, not a very profound mathematician.

When he says (see above) that value "means not an object at all, but a quality," etc., he doubtless had in mind the loose statement, not infrequently made before his time and since, that in the case of two commodities each *is* the value (*i.e.*, purchasing power) of the other (for examples see below, p. 807). No, says Jevons, very justly, value is "a quality, attribute, or rather a circumstance of an object." So far, this seems to be a more correct psychological analysis than that made by Jevons' contemporaries. He then adds: "value *implies* [our italics] in fact *a relation*; but, if so, it cannot possibly be some other thing." This he seems to think is a proof that value *is* a relation, and he thereupon defines value as *a ratio of exchange*. But to say that a quality *implies* a relation is not the same as saying that it *is* a relation (or ratio in the mathematical sense). Height and weight are qualities of objects, and each implies some relation to these commensurable qualities in other objects, but neither the relation *per se* (whatever that might be) nor its mathematical expression in units of other commensurable concrete goods, can properly be called the quality itself. No more with the (exchange) value of which Jevons was speaking.

Now each of these writers in the small group C who has been lured by the hope of finding through mathematics a more scientific treatment of price, has made this shift. The hope is not only to dematerialize purchasing power by making it mean no longer the other thing, but to despiritualize it also, so that it remains nothing but a cold mathematical expression. All qualities cease to be, except in the mathematical aspect. The concept of the quality value becomes merely a mathematical expression.

The first clear evidence of Jevons' influence upon another author's definition appears twenty-five years later. Rambaud (*Elements*, etc., Paris, 1895), while seeming not quite to catch the nature of Jevons' dissent from the conventional view, repeats his language; and makes still more explicit the definition of price as the monetary expression of a ratio of exchange (*i.e.*, of value as he used it), but adds nothing to the argument.

Value viewed in the latter aspect (objective) is what Jevons calls "ratio of exchange" . . . Whenever this "ratio of exchange" is expressed in units of money (as is customary in all society, however little civilized) it takes the name of price (p. 256).

The only other author in our list who expresses adherence to the monetary ratio-concept of price is H. J. Davenport (in his *Value and Distribution*, 1908). He questions whether

Money may be regarded as a measure of value (p. 181). Market price fails in the requirement fundamental to the notion of measurement, namely that a measure must be quantitative and must measure things of quantity. But market value is neither a magnitude nor a quantity, but only a ratio (p. 184).

The author's thought is here of value in the older objective sense, though in general he gives a psychological treatment of value. In another passage occurring later, he faces the problem of terminology directly.

In German usage, *Preis* is the generic term for the good on either side of an exchange, in its function of *quid pro quo*. If the exchange relation is one of good against the money good, the money is called the *Geld-preis*. In English usage—as goes without saying—*price* has been limited to mean exchange power expressed in terms of money solely.<sup>15</sup> Thus while on the whole the German usage may well appear to be the more philosophical, it must remain true that popularly *price* means the money that a thing will sell for, and that some term for this money relation, this expression of exchange power in terms of a conventionally specialized money commodity, is imperatively called for (pp. 218-219).

A few things are worthy of comment here: the first is the author's impression as to the uniformity of English usage. According to our count, of 61 English and American writers, 26 give non-monetary and 35, monetary definitions.<sup>16</sup>

The second is the author's suggestion that what he has seen fit to call "the German usage" "may well appear to be the more philosophical." For what can that mean other than the more

<sup>15</sup> A similar but modified impression, possibly influenced by Davenport's statement, is that of B. M. Anderson (*Social Value*, 1911, p. 175): "In most English treatises on economics . . . price as a rule involves the idea of money." But Anderson himself uses price with the wider, non-monetary meaning.

<sup>16</sup> Details are as follows: Non-monetary, twelve English and five American writers, (total seventeen) in the A group; one English and six American (total seven) in the B group; and two American in the C group; Monetary, eleven English and fifteen American in the A group, no English and seven American in the B group, and one English and one American in the C group.

scientific? In matters of science a very strong presumption must hold against the less philosophical definition.

The third is the author's implication that if the definition is not limited (that is, exclusively) to the monetary expression, our language is left without any term for this money relation. On this, see further below.<sup>17</sup>

### VII. *Ratio-of-exchange non-monetary definitions; type C1.*

We turn now to three examples in group C of the non-monetary type:

Ippoliti .....	1893	I
Gunton .....	1900	A
Fisher, I. ....	1908	A

Barone Francesco d'Ippoliti (professor of economics in Naples, *Corso d'Econ. Sociale*, Naples, 1893) somewhat eclectically says in words again recalling Jevons, but suggesting some influence from the "marginal utility" doctrine:

The relation between a useful thing and that which serves as its measure is called the price, which relation is one of value equal to another value. If the thing serving as a measure is money, then price will be the value expressed in money (p. 79). Value is a relation of equivalence between two economic quantities. It is a ratio, an equation (p. 74).

G. Gunton gives the following definition, a curious composite of older and newer ideas (*Outlines of Social Economics*, 1900):

Value and price are identical. Value and price are two names for the same thing. Both mean, simply, the ratio in which commodities including money, are exchanged for each other or for human service. . . . [J. S. Mill's distinction] is confusing and unnecessary. . . . In modern society where money is used, value and price are the same thing (p. 62).

Because of the plain statement of price as a ratio, this definition must be classed with group C; but it has only a superficial relationship with the other five definitions. The other five ratio definitions might be likened to seedling varieties of the subjective

<sup>17</sup> P. 812. Davenport's expressions on the subject of price occur somewhat incidentally in the discussion of other subjects; and should not be taken as his final judgment. It may be allowable to quote from a letter of recent date in which Davenport, referring to certain critical work, says with characteristic open-mindedness: [It] "convinces me . . . that there is a serious issue to be fought out as to the significance of the word price and its relation to value." Earlier he had expressed doubt as to the advantage of discussing the definition of price.

value doctrine; this is a branch from one of the seedlings grafted upon the old exchange value stock.

In Irving Fisher appears a writer with thorough mathematical training and at the same time with a very favorable attitude toward the subjective-value doctrine. In matters of definition, however, the mathematical interest leads Fisher to the extremest possible limit and plays havoc with the psychological concept of value, as appears in the text and later in the glossary of definitions (*Nature of Capital and Income*, 1906):

If either of the two quantities of wealth is divided by the other, the quotient is called the price of the latter. . . . In modern times one of the two articles is usually money, but this condition is not essential, and in primitive times was not even common (p. 11).

Price—a ratio of exchange (p. 335).

Money price—The quotient found by dividing the money exchanged for goods by the quantity of the goods themselves (p. 335).

The value of goods (wealth, property, services) is the product of their quantity multiplied by their price (p. 336).

It will be observed that Fisher defines not value (as did Jevons) but price, as a ratio of exchange, and shifts the word value over to a significance quite as unlike Jevons' concept, as it is unlike that of the orthodox or that of the Austrian school. Though he does not go back quite as far as does Gunton to the old identification of value and price, he leaves only a mathematical, non-qualitative distinction between them.

Another of the several remarkable things about these definitions of value and of price is the author's conscious disregard of all economic authority. Fisher does not, and evidently knows that he cannot, cite a single precedent in economic literature in support of his novel suggestion. But his appeal is to business usage as he interprets it to be. His statement is as follows:

The definition of value which has been given, applying as it does to an aggregate of wealth instead of the unit, departs somewhat from economic usage; but it follows closely the usage of business men and practical statisticians. Economists have not usually thought it necessary to distinguish between the purchasing power of the unit and the aggregate, but have employed the term "value" indiscriminately to both. . . . It seems preferable to conform our definitions of value and price as closely as possible to business usage, which instinctively and consistently applies the term "price" to the unit and value to the aggregate (p. 13).

Fisher here is comparing his concept of value with that of the

Ricardian-Mill school (purchasing-power), and not with the subjective concept. He says (pp. 14-15):

"Value" as here explained is not a subjective magnitude in the mind of man, but purely objective, as *money-value*, *wheat-value*. It has, of course, subjective causes, but these do not concern us yet.

It is apart from our main purpose to criticise in detail at this point this unique concept of value. This, however, may be said: that "value" is here turned to a use already filled. Any unit either of price or of quantity of goods, is arbitrary and must be always indicated either expressly or by implication, whenever a price is stated; as price in cents, ounces of bullion, per bushel, wagon-load, ton of grain, cotton, iron, etc. Conversely the term aggregate is an arbitrary one, and may be deemed a unit, if one please. Thus a bushel of wheat is but an aggregate of grains of wheat. Consequently the word price can be used without confusion either for the conventional unit or the aggregate of units, and nothing is gained by the innovation. On the other hand, the loss to terminology is great when the term value is taken from its subjective use in which it is indispensable, for thereby an understanding of the recent value-discussion is made hopeless. A demonstration of this is already at hand. Both this unit idea and this definition of price have been employed by A. A. Young ("Quarterly Journal of Economics," vol. XXV, pp. 409-428, May, 1911) with no hint that they lack the sanction of long and general usage. His criticism of the recent psychological treatment is made on the assumption that he is using "value" in the same sense as do the authors he is criticising.

This particular distinction has been sanctioned (not with entire consistency) by Landry (*Manuel d'Economie*, Paris, 1908) whose concept of value is, however, that of purchasing power, and whose definition is classified here as of the non-monetary exchange-value type (A1):

It would be preferable . . . to signify by "price" the value of a unit of a certain sort of goods: men do not speak of the price of a stock of goods . . . but of their value (pp. 492-493).

#### VIII. *Historical survey; before Adam Smith.*

Let us now essay to see these details in some perspective, and if possible to find, in what may at first appear to be but a succession of personal and arbitrary opinions, some trend and explanation. Let us begin with a glance at the tendencies of thought before

the end of the eighteenth century. The Latin *pretium* bequeathed some ambiguity to its derivative price. *Pretium* seems to have meant either a subjective or an objective fact, that is, sometimes an estimation or appreciation, and again a thing or sum of things given in exchange.<sup>18</sup>

This variety of meanings appears in Italian still in the eighteenth century, whether with historical continuity is not clear. The word *prezzo* appears to be used interchangeably with *valore*, in the meaning of estimation, in many places (not always), in the writings contained in the *Scrittori Classici Italiani*.

In German, only the meaning of the thing given is now expressed by *Preis*, and Neumann expressly warns against the ambiguity come down from the older usage, the "*beliebte Identifizierung von Preis und Pretium*,"<sup>19</sup> that is the use of *verum rei pretium* (price) in the sense of *vera rei aestimatio* (Wert).<sup>20</sup> The psychological implication of *pretium* still appears in the English words appreciate, depreciate, and their derivatives. The mediaeval term *justum pretium* was used, it would seem, in the sense of a correct, or right, sum to be given in exchange, measured by some moral standard, more or less vaguely in mind, the true worth, perhaps sometimes the true and abiding benefit. Mere *pretium*, however (not *justum*), when used in an objective sense, seems to have meant whatever was given in exchange for a thing, and it was a just price only when it coincided in amount with that called for, or warranted by, a moral estimate.

It would seem that as the problem of price began in the minds of men to be less an ethical and more a commercial one the concept of *just price* was first displaced by that of (subjective) value, as a standard with which actual prices were compared. The standard became the intensity of desire of bidders in a market. This change appears in all of the European languages. In Italian the change seems to have been comparatively late, yet in the eighteenth century in some Italian writings *prezzo* (the thing given) had come to be contrasted with *valore* used in the now current subjective sense of the estimation or, better, of the quality.

<sup>18</sup> Dr. H. Sewall, "The Theory of Value before Adam Smith," in *Publications of the American Economic Association*, 3d series, vol. II, pp. 542-4. Dr. Sewall thinks that the Romans had an idea of price as "value in exchange," but a very vague one.

<sup>19</sup> F. J. Neumann, in Schönberg's *Handbuch*, 1st ed., 1885, vol. I, p. 174.

<sup>20</sup> *Idem*, note, and p. 171.

esteemed. Thus our three pre-Smithian examples, Beccaria, Verri, and Condillac, reflect the best usage of their time, in Italian and French, by which price and value were contrasted as objective and subjective, as thing given and quality for which given, as concrete object and as the intangible thing, esteem.

*IX. Historical survey; objective-exchange-value definitions.*

Adam Smith, more than his contemporaries, approached the question of price with a distinctively commercial interest, to explain the cause of prices in a developed market. Price apparently was understood as the object (or service) or group of objects given in exchange. Smith attempted an analysis of "the component parts of price," and without any special thought of terminology, he connected price with a concept of value as purchasing power rather than as subjective (his use-value). "Price," he said, is "the real measure of this exchangeable value." The thing given in exchange being the measure of the purchasing power, was looked upon as nearly the same as the purchasing power. Smith thus heads our list of objective-value definitions which comprise 61 per cent of our collection.

Smith's definition was of the non-monetary variety, as are all ten of the definitions dating earlier than 1817. It is in Ricardo that we have found the first clear example of the monetary kind. Even he, as we have seen (above, p. 787), at first followed Smith's lead, then later definitively turned in another direction and made price mean the *monetary* expression of "exchange-value." Just then the fortunes of the monetary and the objective-value concept became intertwined in a large measure, not merely, it would seem, because of the potent example of Ricardo's usage, but because that example but spoke the logic of the situation. When one understands by value a personal estimate (or, more exactly, a quality in goods esteemed by a person) one sees much significance in the contrast of this value with the object given or received for it. But when one gives only the objective meaning, purchasing power, to value, and then, not being interested in subtle distinctions, comes to identify that purchasing power with the thing that can be gotten in exchange for it, value and price have become synonymous, and remain so until some other distinction can be suggested. At a time when the barter economy was everywhere in England being replaced more and more by the money economy,

Ricardo as a man of "the City" knew no prices excepting those expressed as money, and in the contrast between value as purchasing power in general, and money as the particular form, expression or measure, he easily saw a new ground of distinction. Thence arose a new variety of price-definition.<sup>21</sup>

The trend of opinion in this direction became at once marked. Of our 14 examples dating from 1817 to 1847, 8 are of the monetary variety, and but 6 are non-monetary: 13 are of the objective-value group, and but one (a German) is of the subjective-value group.

Then in 1848, J. S. Mill, in so many ways the fulfillment of Ricardo, clearly expressed his opinion, as preceding objective-value theorists had implied theirs, that the only distinction to be found between value (as he used it) and price was in the monetary character of the price expression. Between 1848 and 1870 outside of German lands Mill's choice swept nearly all before it. Everyone of the 12 non-German writers of that period in our list formulates his definition of price in connection with an objective-value concept (A group), and 11 of these are of the monetary variety (Bowen, the American, being the exception, 1870). Of the 7 German writers, 3 (Roscher, Umpfenbach and Mangoldt) recognize the subjective concept of value but formulate non-monetary price definitions (A1) in connection with the objective-value concept; 2 (Schulze and Glaser) formulate non-monetary subjective-value concepts (B1); and 2 (Stein and Maurus) formulate monetary subjective-value concepts (B2).

It may seem remarkable that so important a term as value could undergo the transfer, or transformation, of meaning above traced without leaving a noticeable gap in terminology. The explanation is hardly doubtful, and is not without interest. In its verbal use the word value underwent hardly any corresponding change, and still signified, in popular and scientific speech, to esteem, to attach importance, etc. But in its substantive use the word value was

<sup>21</sup> In the Washington discussion, Professor S. N. Patten pointed out that the character of the change from a barter to a money-economy was so striking in Ricardo's time that it would easily suggest new categories and the shifting of terms. See "Proceedings," *AMERICAN ECONOMIC REVIEW*, vol. II, No. 1, supp., p. 91. It seems most probable that eighteenth century writers had used the word price in this way, but Ricardo is the first clear-cut example our study has as yet revealed of the formal limitation of price to monetary terms.

from near the end of the eighteenth century, rapidly losing, at least in economic writings, all trace of the psychological quality of exciting desire, and was coming to mean purchasing-power, power-in-exchange (objective). At the same time the place of Adam Smith's mongrel phrase, use-value was, largely through the authority of Bentham, being taken by the word utility. In turn the word utility, in philosophical and economic discussion, was shorn in large part of its earlier and fundamental meaning of benefit (independent of desire). The full account of this change would be too long a story at this place, but this it was, I venture to suggest, that made it possible for Mill and others to quite miss the significance of the earlier distinction between value and price. This it was, too, which introduced into economic discussion new ambiguities and misunderstandings, which still, in the concept of marginal utility, persist to plague even the revived form of the subjective-value doctrine, whether it comes through Gossen, or Jevons, or Menger, or Clark, or any other. This change of terminology in English seems to have been only very incompletely made in German, where the root words *Wert* and *Nutzen* were not easy to confuse.

Group A includes nearly all of the economists that can be classified as of the Smith-Ricardo-Mill school. Altogether 60 per cent of our examples are of this group (23 per cent non-monetary and 37 per cent monetary). The non-monetary line begins with Smith and ends with the University of Chicago teachers, and the monetary line begins with Ricardo and ends with Taussig. Only a few are here who are not of the fairly strict orthodox school of theory, if by that be understood the adherents to the doctrines of the exceptional nature of the law of rent, of the produced-goods-concept of capital, of the cost-of-production theory of value, etc. (Among these exceptions may be noted Carey and his disciple E. P. Smith.) There are some writers, however, who have a strong leaning toward a more psychological concept of value and by affinity might be expected to adhere to the B group, but by habit of thought or force of precedent have so expressed themselves that they must be classified in the A group. Such in the period before 1870 appear to be Hufeland, Roscher, Umpfenbach, and Mangoldt. Such after 1870 are Devas (1892), Cannan (1897), and Lindsay (in Palgrave's *Dictionary*, 1899). It may be noted also that all of these seven favor the non-monetary type of definition,

and the three later ones all evidence the influence of the subjective value discussion.

Thus in the year 1870 the Mill-Ricardian economics was, outside of German lands, thoroughly in possession of the field. In Germany also it exercised a powerful influence, even in terminology, which crosses a *Sprach-grenze* with difficulty. For sixty-five years, from 1805 to 1870, the objective-value group of price definitions had a monopoly (so far as we have found) among English, American, French and Italian writers, while claiming also 5 of the 11 German writers.

*X. Historical survey; subjective-value definitions.*

With the year 1871, which saw the publication of the notable theoretical works of Menger and of Jevons, came a new impulse. To Menger's influence can be directly traced most of the definitions of group B in our list between 1871 and 1911; to the influence of Jevons is probably due the distinctive mark of all the definitions in group C; and the influence of Jevons combined to strengthen the Austrians' appeal for a psychological concept of value, however much his terminology differed from theirs. To these influences contributed likewise the awakened interest of American students in German scholarship. Such traces of German economic thought as have reached England in the past forty years seem to have filtered through the medium of American writings, as was genially and wittily expressed by Mr. Henry Higgs, a representative of the British Economic Society at the anniversary meeting of the American Economic Association in 1909. Though the writings of Wieser and Böhm-Bawerk owed their translation into English to the Scotch economist, Smart, they have seemed to make little impression upon British economists, while deeply affecting American thought.

The non-monetary (B1) type of price definition is most characteristic of the more thoroughgoing subjective-value theorists. First in the list is a little group of two Italian names and one French, Beccaria, Verri, and Condillac, not to be taken merely as three independent opinions, but representative of the prevailing conceptions before the Smith-Ricardian era. Then in 1803 and 1804, Say and Lauderdale, akin in their doctrines on a number of points, including their sympathy with a subjective treatment of value. Then from 1805 to 1870, only three examples of the non-monetary subjective-value concept—all German. Then with Men-

ger's notable restatement of the psychological doctrine, appear between 1871 and 1911 twenty examples, including his own, of the non-monetary type of price definition (B1), besides ten of the B2 type. Menger's influence was not because of his own brief verbal definition of price, but rather because of his revitalizing of the treatment of the fundamentals in economic theory.

The monetary variety of the subjective-value group (B2), of which there are thirteen examples, appears to have been produced by a process of hybridizing. All price definitions before 1845 were either of the non-monetary subjective-value type (B1) or of one of the two objective-value types (A). The first three cases of B2 occurred between 1845 and 1858, and were all German. This suggests that the writers with a subjective-value concept (most congenial to German thought) framed their definition of price by grafting upon it the monetary idea then become general in English economics. The cases of Schmoller, Kemmerer, and A. S. Johnson are recent examples of the same tendency. All of the eight writers from Gide, in 1883, on (except Schmoller) have been largely influenced by the Austrian psychological treatment of value, Gide, Andrews, and Ely, being pioneers in their countries in this process of transplantation. At least six of the eight, however, retain strong evidences of a continuing Ricardian influence.

This group thus consists of writers who, while using words in defining price very similar to those used (*e.g.*) by J. S. Mill, have a very different psychological basis. They think of the value which is expressed as subjective not as purchasing power, and they must reject the reason assigned by J. S. Mill for adopting a monetary definition.

The place of Group C in the order of development has been made sufficiently evident in our preceding criticism of it. Jevons' well-meant effort, as students of economics know, was only accidentally terminological, and was primarily to find a sounder psychological explanation of price than that in the then current cost-of-production doctrine. The inspirational results of Jevons' work in this field are considerable, but his suggestion of a mathematical ratio-of-exchange concept seems to have been a turn into a blind lane. Jevons has found for his ratio concept of value and price not a single disciple among his own compatriots. The one French, one Italian, and three American writers who reflect his influence show individual variety and freshness of thought, but no evidence

of a price concept capable of further development. If freed from its initial confusion, this idea of Jevons' would probably lose its distinctive significance, and thereby these six definitions of price (C group) become classifiable with the other two groups.

*XI. Statistical survey and some critical comments.*

We may be helped to see the general trend by taking the statistical results of our study, without placing too much emphasis on an enumeration necessarily incomplete.

In the period before 1817 the A group shows 40 per cent of all definitions; between 1817 and 1847, 93 per cent (all but the one German); in 1848-1870, 79 per cent (the fall being due entirely to the larger proportion of German names in our list in this period); in 1871-1911, 51 per cent (the fall being due to the renaissance of the subjective concept everywhere but in England). Conversely, the B definitions constitute before 1817, 60 per cent of all, fall to 7 per cent between 1817 and 1847, and increase to 40 per cent in the period between 1871-1911 (the remaining 9 per cent being of the C group).

The correlation between the monetary and the objective value concepts since Ricardo's time appears in these figures: none of the A definitions were monetary before 1817; 1817-1847, 54 per cent of them were monetary; 1848-1870, 73 per cent; this falling to 66 per cent between 1871-1911 was because of the conflicting influences of this period as already described.

The B group was 100 per cent non-monetary until after 1848; (between 1848-1870, but one B definition appears, that being monetary); and between 1871-1911, was 66 per cent non-monetary, the fall being mostly due to the acceptance of the subjective-value concept by writers who in the main were otherwise Ricardian.

The C group which dates from 1871 on, is 50 per cent of each variety.

Thus in the past forty years while the A and B definitions appear in almost equal numbers, two thirds of the former are monetary, and two thirds of the latter are non-monetary. If all definitions be considered, there were 100 per cent non-monetary before Ricardo; this figure falling between 1817 and 1847 to 43 per cent, and after Mill and until 1870, to 32 per cent, and recovering between 1871-1911 to 49 per cent.

In all this history of price-definition there is evident an astound-

ing lack hitherto of any systematic study of the problem. The few conscious attempts at reformulation occur incidental to the discussion of other problems in which the writer's interest is absorbed. Doubtless some have given to their choice more of deliberation than is evident, but scarcely more than a half dozen seem to have considered the issues at all, either in their historical or in their logical bearings. Most of the definitions give evidence of a choice made by chance, by imitation, or by deference to authority. Those writers who depart somewhat from precedent seem in most cases to do so with entire naïveté, without a hint that their unusual definitions are anything but the universal one.

Amid such diversity of counsels who dare decide? Terminology is so essentially a matter for socialized decision, in which the individual judgment is not conclusive; in the end conclusive only is the general consensus of opinion of scholars as to the expediency in the choice of an aim and of the means of attaining it, as to the best usages and analogies of speech, and as to the logical consistency of the definition itself, in its parts and in its relations to a system of concepts. We have not the space here to restate further the general principles of terminology. This has been often and well done already. We shall, however, bear in mind those principles which may be assumed to be accepted.

The present writer confesses that these laborious researches have compelled a change in his own conviction—if the superficial consideration with which a price-definition has usually been chosen can be said to lead to a conviction worthy of the name. He finds that the problem itself does not seem to be inherently so difficult. He finds that it has been needlessly complicated with other questions, and he ventures to present some positive opinions in the hope that they may be found to contain a satisfactory solution of the problem.

## *XII. Definition without reference to value.*

Our first proposal looking toward a universal price-definition is that it should be formed without reference to the value-concept.<sup>22</sup>

"Value" it will readily be agreed, is a more ambiguous and

<sup>22</sup> This was advocated by A. A. Young and B. M. Anderson at the Washington discussion from standpoints differing as much from each other as from that of this paper. This illustrates the possibility of agreement on this proposal. See *Proceedings*, p. 91, in the *AMERICAN ECONOMIC REVIEW*, March, 1912, supp.

more subtle term than price. Yet a large proportion of the price definitions are framed in terms of value. Good definition should proceed from the known to the unknown, from the simple to the complex, but most price-definitions reverse this order.<sup>23</sup>

It is, however, possible even for the writers of the A2 group to frame a definition without explicit reference to value, *e. g.*: Coquelin et Guillaumin, Laughlin, De Foville, and Beauregard (see above, pp. 789-790). It might with some show of reason be suggested that logically viewed, these writers should be classified in a new group, for there is an essential distinction between a definition of price as the money (or quantity of money) itself,

<sup>23</sup> In the A2 definitions the (money) price is said to be the value of a commodity exchanged for money, by Courcelle-Seneuil, J. S. Mill (E); to measure the value, Metz-Noblat, Newcomb, Seager, Colson; to be value estimated, Marcet, Vethake, Leroy-Beaulieu, Prothero; to express value, Ricardo, Droz, Garnier, Boccardo (E), Cherbuliez, Hearn (E), Batbie, A. Walker, Cossa, Cauwès, Carey, Nazzani (E), Ford, Marshall (E), Perin, Bullock, Nicholson, Carver, Levasseur, J. F. Johnson (E); to be the notation of value, E. P. Smith; or value is said to be price when in terms of money, Carey, Bonar, Taussig (E).

But in many of the definitions of the A2 type the value is spoken of as the quantity of other goods in general given in exchange for the particular good, and with this is contrasted price, the quantity of money, as a species of value, *e.g.*: Senior, Vethake (in addition to the other expression above noted) Mill (E), Boccardo (E), Hearn (E), Nazzani (E), Macvane, Marshall (E), J. F. Johnson (E), Taussig (E).

The writers marked (E) are equivocal in that they say both that value (or sometimes it is price) is the quantity of commodities (or of money), and that the commodities (or the money) express value.

A very similar range of expression occurs with writers of the A1 type. Price is said to measure value, A. Smith (also value to be "estimated by the quantity"), McCulloch, Musgrave, Pesch (E), Landry; to express, Jakob, Roscher, Mangoldt, F. A. Walker, Houdard, Molinari, Devas, Pesch (E), University of Chicago; to denote, Torrens; to be a compared exchangeable value, Hufeland; to be value "ratified or made effectual," DeQuincy; to be value in relation to a selected commodity, Cairnes; to be realized exchange value, Umpfenbach; or is spoken of as the same as value, "price or exchangeable value," Ganih, McVickar. By others value is spoken of as the quantity of goods which exchanges for another good (again it is price which is spoken of in this manner, the usage which J. S. Mill sought to avoid; a clear case is presented by his father, J. Mill); Cannan (whose statement is: "The value of a commodity is always the quantity of some other commodity"), Pesch (equivocal though he distinguishes between this sense of price, "in the concrete," and the other "in the abstract"). Gide, whose value-definition is subjective, gives a flagrant example of the identifying of price and value (see above, p. 792).

and as the purchasing power (whether that be an abstract quality, or another concrete good) which the money merely expresses. Our reason for not making a separate group of these was doubt whether these writers had any conscious purpose of departing from the conventional conception held by other writers of the same doctrinal trend in nearly all respects. A juster interpretation seems to be that this omission was merely accidental, and that the complete expression of the thought of the writers would contain a reference to value after the manner of the following examples:

J. F. Johnson (1905): "Price is the amount of money a given commodity will exchange for. It expresses, therefore, the value of a commodity with respect to money" (p. 9).

F. W. Taussig (1911): "By the price of a commodity is signified the amount of money which it will command; in other words, its value in terms of the accepted medium of exchange" (vol. II, p. 117).

The first part of each of these two statements is a definition of price in concrete terms, and in this respect conforms to the desideratum we have suggested. The second part of Johnson's statement may be taken as *his* opinion regarding the relations of price to value, which one may reject while approving his price-definition; the second part of Taussig's statement is *his* alternative definition, which, however, might be rejected by one accepting the first part.

When we turn to the group of subjective-value writers the definition of price in concrete terms is much more frequent, indeed it comprises about one half of all the B group (nearly three fourths of those of the non-monetary type). A few have been tempted to involve the reference to (subjective) value with the terms of the price definition, among whom are Schäffle, Hicks, Kleinwächter, Devine, Seligman, A. S. Johnson, and the present writer. In these cases, however, presumably the statement if completed would have taken the form given it by Kleinwächter, who after defining price as the expression of exchange value<sup>24</sup> (*Lehrbuch der National Oekonomie*, 1902, p. 292) adds that to this an amendment must be made, for each of the two exchangers must deem the thing acquired more valuable than the thing given. No one holding consistently the subjective concept of value can

<sup>24</sup> Kleinwächter says exchange-value, but the context seems to justify the interpretation that it is the subjective valuation of the two parties to which he refers; he has therefore been classified with the B group.

frame a definition of price as a species of the genus value; for price as a concrete object must be contrasted (either expressly or impliedly) with a psychological estimate which only more or less roughly is reflected in the quantity and kind of that object.

It should be easy to gain agreement to the proposition that a definition of price should not involve a theory of price and of its relations to value; it should be, as far as possible, objective, and be expressed in terms of concrete experience. This, as our examples show, can be done without sacrifice of essential views and with gain in clearness by writers of all shades of opinion on value-doctrine and value-terminology. Let each, whatever be his opinions as to the component parts of price (Adam Smith's problem) or as to the way in which it and value are connected (the Austrian problem), withhold that opinion from his definition of price. Let us frame a definition of price in terms of the thing given in exchange, one of the most familiar, the most concrete, and the most simple facts in modern man's economic experience.

Something should be said here of still another modification of the price concept, by broadening it so as to include two species, personal prices and social prices. Some variety of this terminology has doubtless been employed pretty widely by teachers since the Austrian doctrine came into vogue; but it has rarely found its way into print. We have found but two clear-cut examples of it, the one by A. S. Johnson (above quoted):

There are personal and social prices just as there are personal and social values. . . . Social price is called market price.

The other example is by Kemmerer (*Money and Credit Instruments*, etc. 1st ed., 1906; 2d ed., 1909, p. 4):

Every commodity has a subjective price to the individual wanting it. In a money economy this price is the individual's subjective valuation of the commodity in terms of his subjective valuation of the money unit. S, for example, offers his horse to B for \$200. This price is purely subjective and does not of itself lead to an exchange, nor make any demand upon the circulating medium.

A few lines further the author quotes with approval a passage from Böhm-Bawerk in which he speaks of "subjective valuations" as the sole cause to which "the formation of price" is traceable. The impression given is that this subjective price *vs.* market price terminology is in accord with the Austrians' usage but this is surely not the case.<sup>25</sup> Throughout Böhm-Bawerk's treatment

<sup>25</sup> A casual examination of Wieser's use of price (*Natural Value*, pp. 39-

there is a pretty clear three-fold distinction maintained among *subjective valuations* (the original is *Wertschätzungen*) and *price*, the object or goods given, and *Wert*, the quality esteemed. Kemmerer follows a very general usage by identifying valuation and value, for he says (note, p. 4) :

The words subjective value, and its derivative, subjective valuation, as used throughout this paper, refer to the quality or property of a commodity, of conditioning the gratification of want.

This use leaves a need in English terminology which he fills with the term "subjective-price" (attaching to it the monetary character); but subjective price is nothing other than (individual) valuation, or *Wertschätzung*. This may be expressed either in money or in any other good.<sup>26</sup>

66) might leave the impression that he held a price concept of the kind before us. First as to the monetary mark, for all his specific references to price are in monetary terms. In introducing his discussion (p. 39) Wieser expressly limits his inquiry:

"It is not our task here to deal either with price or with the forms of value depending on it." A few lines further, after indicating his main purpose he says: "*For this purpose* it will be sufficient to describe *that particular case* of the formation of price in which its peculiar principle can be most clearly discerned. This is at the same time the normal formation of price *under the organized division of labor.*"

Another expression of Wieser's seems to come near to the phrase subjective price. In the table of contents the translator puts it "Price. Its connection with subjective use value. Taking its normal formation, we find buyers coming to market with a maximum price in their minds to which sellers try to drive them."

(I have not the German original, and such subtle differences as the one before us are often lost in the translation.) The text does not quite bear out this wording. It says (p. 40):

"A person . . . will not, however strong his desire, agree to pay any price that may be asked. There is a certain maximum at which he would rather withdraw from the market than raise his offer further. This maximum is determined by two valuations."

Nothing is said in the text of the buyers having a maximum price *in their minds*. The maximum price is spoken of as existing on the market, *at which* the buyers having *in their minds* valuations withdraw from the market. There does not appear any basis for the notion that Wieser had a price concept different from that of his master, Menger, or of his colleague and friend Böhm-Bawerk. It would require a direct disclaimer on his part to make such a view reasonable. But as Wieser gives no quotable definition, he is not included in our list of writers.

<sup>26</sup> The writer discovers an example among the exercises in his own text, the *Principles of Economics* (2d ed., 1910), p. 574, where the phrase "subjective minimum price" is used. He therefore must apply to himself the foregoing criticism upon others. It must be conceded that the popular usage of price as a bid, or offer, and again as an outside or maximum amount in an ex-changer's mind, is very tempting.

The use of the term personal prices is one of those little departures of thought which shifts the term before one is aware into a different conceptual field. In the case before us both value and price become ambiguous (*i. e.*, the old meaning persists side by side with the new) and the vocabulary instead of being enriched, is impoverished by the change. Price cannot be defined at the same time both as an actual and an estimated quantity of goods, without changing its content essentially.

*XIII. Definition without reference to money.*

If the proposal set forth above should meet with acceptance there would remain but one issue to settle to attain a universal concept of price; the issue of the monetary *vs.* the non-monetary characteristic of the price material. Here may be greater difficulty. Our count of the definitions shows economists almost equally divided, after including with the non-monetary group a number who admit that at present price most often is expressed in terms of money, and after including with the monetary group a number who say that, in a régime or barter, price was formerly expressed in other goods (seeming to imply that so far as cases of barter occur now price may still be in other than monetary terms). These border-line opinions go far towards bridging the division. Most non-monetary terminologists see in the contrast between the psychological quality in any good sold, and the concrete good whatever it be for which it exchanges, a distinction important to maintain. Without satisfying this demand, no agreement on a price definition can be hoped for with the Austrian, the German, with a considerable number of the Italian and of the American writers, and possibly with a few of the English and of the French.

On the other hand it might seem that it would be hopeless to attempt to gain over the monetary terminologists to this view. The present adherents of the A2 and of the B2 type are alike impressed with the fact that in a very large proportion of the cases price is, in a monetary régime, expressed in terms of money; then why (think they) be concerned to make room within the concept of price for the insignificant number of cases in which some other good is given in exchange? One friend has suggested that such cases can be well-enough cared for by the term "purchasing power over" or by "value in terms of" (which carries us back to the difficulty already made clear, that the other good is not the

purchasing power, or the value). The logic of the contrast between value and price in modern psychological economics is not dependent on the number of concrete cases occurring. In Scandinavian lands probably not one time in many millions does the word man, when used, refer to other than a white man, but that is no reason for the Scandinavians narrowing the term man to exclude the black and yellow races. The word price has in practice a large number of possible applications to non-monetary goods, for barter is far from extinct, and in popular usage "the price he paid for it" includes almost everything capable of exchange. Economics should not cut itself off in even a small number of cases from popular usage, nor judge that usage solely by the developed money-market, *when this is not necessary to arrive at a logical concept.*

Other adherents of the monetary concept doubtless are appealed to by the argument as framed by Davenport, that "some term for this money relation, this expression of exchange power in terms of a conventionally specialized money commodity, is imperatively called for." But with the non-monetary concept there is no such void in our terminology as it is assumed would exist. The difficulty has no reality, for the reason that with both types of concept it is necessary to indicate in concrete terms *in every case* (expressly or by the context) the kind and quantity of goods comprising price. Monetary price must be in dollars and cents, marks and pfennigs, etc. No abstract quantitative expression of price has any meaning. The price is so many or so much—what? and for what measure? Wheat is so many cents per bushel, cloth so many pence per yard. The statement is not simplified or shortened in the least by limiting the definition of price to money. It is this necessary condition of indicating what monetary system or material is referred to that enables the adherent of the monetary definition to concede on grounds of expediency this point without any essential loss.

A greater difficulty is to gain the support of the theorists of the Ricardian-Mill school. Mill's view that the contrast between money and other goods constitutes the only distinction between price and value has left a deep impression on economic thought. But only the living economists need unite now in this decision and it is questionable whether anyone today can, after deliberation, approve the reason given by Mill. The psychological studies of

recent decades have so far entered into the general economic consciousness as to make it impossible longer to identify "the purchasing power" of a commodity with the other commodity (though the phrase may still be repeated). Those who prefer to take value primarily in its objective sense as power-in-exchange, must distinguish between the quality and the object which it purchases. And when this distinction is made by an objective-value theorist he is no longer any more bound than is a subjective-value theorist to maintain that the monetary character is essential to the price definition. Other choices lie open to him.

In practice, actual prices by the non-monetary definitions in most cases (and increasingly with the extension of the money-economy) are quoted in terms of money, but that does not necessitate framing the definitions in monetary terms, either on practical or on theoretical grounds. Every actual expression of prices, to be complete, must contain, express or implied, a specification of the "price-good." "General prices" must be in gold or in silver or in inconvertible paper, whatever has become the standard money of the time and place.

The definition of price at which we have arrived is: Price is the quantity of goods given or received in exchange for another good. We can hardly improve upon Menger's wording: "Prices are the quantities of goods appearing in exchange"; (though we might add) when viewed as payment for the goods against which they are exchanged.

It may seem to the reader that this paper has gone into needless detail and to needless length; but the writer must still regret that in hastily passing over the evidence available on minor matters, he may have left removable causes of misunderstanding. The history of this subject is so filled with examples of difficulties glossed over, that we can hardly err by proving "all things."

Our hope may be unrealized. The time may not yet have come when general agreement may be reached on an international definition of price and thus a beginning be made toward a system of scientific terminology. But this essay may at least serve to clear away some misunderstandings, make more evident the nature of the problem, and perhaps prepare the way for its solution.

FRANK A. FETTER.

*Princeton University.*